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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : C02F 1/52, 1/58	A1	(11) International Publication Number: WO 90/05705	(43) International Publication Date: 31 May 1990 (31.05.90)
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(21) International Application Number: PCT/DK89/00266

(22) International Filing Date: 13 November 1989 (13.11.89)

(30) Priority data:
6345/88

14 November 1988 (14.11.88) DK

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(81) Designated States: AT, AT (European patent), AU, BB, BE
(European patent), BF (OAPI patent), BG, BJ (OAPI
patent), BR, CF (OAPI patent), CG (OAPI patent), CH,
CH (European patent), CM (OAPI patent), DE, DE
(European patent), DK, FI, FR (European patent), GA
(OAPI patent), GB, GB (European patent), HU, IT (Eu-
ropean patent), JP, KP, KR, LK, LU, LU (European pa-
tent), MC, MG, ML (OAPI patent), MR (OAPI patent),
MW, NL, NL (European patent), NO, RO, SD, SE, SE
(European patent), SN (OAPI patent), SU, TD (OAPI
patent), TG (OAPI patent), US.

Published

With international search report.
In English translation (filed in Danish).

(54) Title: A PROCESS OF REMOVING PHOSPHATE FROM WATER, AND A SYSTEM FOR USE IN THE PROCESS

(57) Abstract

The phosphate content in water, in particular waste water, is lowered corresponding to a purification degree (removal of phosphate) of 90-99 % by treating the water after aeration with a solution of an iron(II) compound which through a volume is joined with a solid, stirred of fluidized bed of particles, the phosphate hereby being removed from the water by crystallization on the particles. Use is preferably made of an aqueous solution of iron(II) sulphate or iron(II) chloride and particles of quartz sand having a diameter of 0.1-1.0 mm. The removal of phosphate may be effected without adjusting the hardness, pH-value or bicarbonate content of the water. No gel formation takes place and no chemical sludge is produced and the crystallized phosphate can be reused. Hereby - besides a most satisfactory purification - a significantly improved economy as compared with the known methods is obtained.